



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

Wetlands

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Description:

- Wetlands are areas where water saturates the soil long enough to affect the chemical and physical characteristics of the soil and the composition of plant species in the area.
- Wetlands are found throughout the landscape. Wetlands are customarily thought of as places that lie between deep water, such as a lake or stream, and dry land. However, wetlands are also found at higher elevations in the landscape. They occur in depressions, at the head of streams or even on slopes where groundwater seeps from a hillside. Wetlands also occur in wooded areas.
- Not all areas that flood or pond water are wetlands, and not all wetlands are wet on the surface. Areas that are only wet for a few days after a rain are probably not a wetland.
- Nearly 5,000 different plants may live as wetland vegetation in the United States. Some Indiana examples include: bulrush, willow, green ash, pin oak, buttonwood, silver maple, cotton wood, arrowhead and cattail.
- In addition to the diversity of wetland plant life, nearly 2,000 named soils in the United States occur in wetlands. Most of Indiana's wetland soils are dark with brighter orange or reddish blotches (mottles). Peat and muck soils (organic soils) are often found in Northern Indiana, and sandy soils with surface organics or organic streaking may also be found in Northwestern Indiana.
- Wetlands are classified in three ways: Jurisdictional Wetlands are those which are adjacent to waters of the United States and regulated by United States Army Corps of Engineers (USACE), Non-Jurisdictional Wetlands are isolated wetlands which are regulated by the Indiana Department of Environmental Management (IDEM) through the State Regulated Wetlands Program, and exempt isolated wetlands are those not regulated by either IDEM or the USACE.

Environmental Impacts:

- Wetlands are important for water storage, acting like a natural sponge, storing water and slowly releasing it. This process slows the water's momentum and erosive potential, reduces flood heights and allows for ground water recharge. The U.S. Army Corps of Engineers (USACE) found that protecting wetlands along the Charles River in Boston, MA, saved \$17 million in potential flood damage annually.
- Wetlands also act as a natural filtration system. Because water is slowed in the wetland and forced to move in close contact with the microbes in the soil, much of the water's nutrient and pollutant load is removed by the time it leaves a wetland. In fact, due to wetlands' filtration ability, environmental managers have developed artificial wetlands to treat storm water and wastewater.
- Wetlands high in the landscape act to capture and filter rainwater and transmit this water into aquifers that feed our streams and wells.
- It is common to find woodlands saturated just below the surface for more than two weeks at a time. These dryer wetlands are more difficult to recognize, but have distinctive soil chemistry and plant species which render them valuable water quality and groundwater recharge resources.

- Wetlands are also some of the world's most productive ecosystems, rivaling tropical rainforests in biological productivity and diversity of species.

IDEM's Role:

- Wetlands are regulated by federal law under the Clean Water Act (CWA) Sections 401 and 404. The USACE is responsible for Section 404 permitting for jurisdictional wetlands.
- IDEM regulates Indiana's wetlands through two permitting programs: CWA Section 401 Water Quality Certification (WQC) and the State Regulated Wetlands Permitting program. The WQC program covers federally jurisdictional wetlands, while the State Regulated Wetlands program covers non-exempt isolated wetlands.
- IDEM's role under the WQC is to ensure that activities authorized by federal permits do not damage water quality. Under the State Regulated Wetlands program, IDEM regulates discharges of dredged and fill material into non-exempt isolated wetlands.
- Some wetland loss is unavoidable. In these situations, IDEM issues a permit providing the effect on water quality is temporary either because the area is restored or the wetland is replaced. This replacement is known as compensatory mitigation or sometimes just mitigation.
- Mitigation Banking is another option to constructing individual mitigation wetland sites. Mitigation Banking allows a sponsor (e.g., individual, corporation, governmental entity etc.), to restore a large wetland in advance of impacts with the expectation that they may use or sell these "credits" at a future date. Under certain circumstances the sponsor may be allowed to use or sell a percentage of the credits before the wetland is restored.

Citizen's Role:

- The Section 401 WQC and State Regulated Wetlands permitting processes include opportunities for citizen involvement through public comment periods. Public notices of applications for both programs are posted regularly on IDEM's Web site at: <http://www.IN.gov/idem/programs/water/401/pubnot.html>.
- During the permitting process, there is a period where citizens have the right to voice concerns regarding water quality and request a public hearing. Citizens should refer to the individual permit application notices for more information.

More Information:

- For more information about wetland regulation and permitting, citizens should contact the project manager for their county. This information can be found on IDEM's Web site at: <http://www.IN.gov/idem/programs/water/images/401pmmmap.jpg>.
- For links to other sources of information regarding wetlands, visit our Web site at: <http://www.IN.gov/idem/programs/water/401/links.html>.
- To view state regulations regarding wetlands, see the Indiana Administrative Code 327-IAC-17.